



CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005



Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-09/134a/CEMENT/2016-17

Date: 03.09.2016

TEST REPORT ON CEMENT

* CUSTOMER	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* AGENCY	: Technical Manager (West), KRIDL, Bangalore.
* NAME OF THE WORK	: Improvements of CC roads and RCC drains at 8 th , 9 th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* REFERENCE	: AEE/SSD/PR/62/2016-17 Dated: 02.09.2016
SAMPLE ID	: Cement - Sample 4
SAMPLE RECEIVED ON	: 02.09.2016
PERIOD OF TESTING	: 02.09.2016 to 03.09.2016



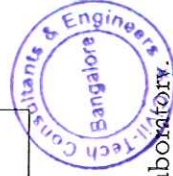
The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	150 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	480 Minutes	Not More than 600 Minutes
3	Soundness by Le Chatelier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

Note:

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-09/134a/SAND-Gradation/2016-17 : 03.09.2016

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

- * Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
- * Agency : Technical Manager (West), KRIDL, Bangalore.
- * Name of Work : Improvements of CC roads and RCC drains at 8th, 9th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : AEE/SSD/PR/62/2016-17 Dated: 02.09.2016

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates - Sample 4

Sample Received on : 02.09.2016

Date of Testing : 03.09.2016



Total Wt. of Aggregates in grms 1000

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	97.00	90-100	90-100	90-100	95-100
2.36	78.70	60-95	75-100	85-100	95-100
1.18	57.70	30-70	55-90	75-100	90-100
600 Micron	28.20	15-34	35-59	60-79	80-100
300 Micron	15.70	5-20	8-30	12-40	15-50
150 Micron	6.70	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.





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Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-09/134a/AGG/GR/2016-17

: 03.09.2016

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

* Customer

: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

* Agency

: Technical Manager (West), KRIDL, Bangalore.

* Name of Work

: Improvements of CC roads and RCC drains at 8th, 9th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference

: AEE/SSD/PR/62/2016-17 Dated: 02.09.2016

Technical Reference

: IS : 2386 Part 1 -1963 RA-2007

Sample ID

: Coarse Aggregates (40mm) -Sample 4

Sample Received on

: 02.09.2016

Date of Testing

: 03.09.2016



Total Wt. of Aggregates in gms= 7000

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.83	95-100	85-100
20	39.27	30-70	0-20
10	17.70	10-35	0-5
4.75	3.51	0-5	-

* Information is furnished by the Customer / Designation



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: 03.09.2016

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

- * Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
- * Agency : Technical Manager (West), KRIDL, Bangalore.
- * Name of Work : Improvements of CC roads and RCC drains at 8th, 9th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
- * Reference : AEE/SSD/PR/62/2016-17 Dated: 02.09.2016
- Technical Reference : IS : 2386 Part 1 -1963 RA-2007
- Sample ID : Coarse Aggregates (20mm) - Sample 4
- Sample Received on : 02.09.2016
- Date of Testing : 03.09.2016



Total Wt. of Aggregates in gms= 5000

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS :383-1970 (RA- 2007)	
		Graded	Single Sized
40	100	100	100
20	97.00	95-100	85-100
10	27.00	25-55	0-20
4.75	6.20	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits





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Job No.: CTCE/BBMP/W.No.13/KRIDL /STEEL/2016-17

03.09.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer : Asst. Executive Engineer, Shettyhalli Sub Division,
BBMP, Bangalore.

Agency : Technical Manager (West), KRIDL, Bangalore.

Name of the Work : Improvements of CC roads and RCC drains at 8th, 9th
Cross & other roads near Pipeline in Ward No.13, in
Shettyhalli Sub Division, BBMP, Bangalore.

Reference : AEE/SSD/PR/62/2016-17 Dated: 02.09.2016

Date of Test : 03.09.2016

Technical Reference : IS: 1786-2008



Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm ²	Tensile strength (Ultimate stress) N/mm ²	Elongation percent gauge length		
1	8	0.40	510	552	13.10	O.K	O.K

Note:

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⇒ The results indicated above are based on the test results of the material.





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Job No.: CTCE/BBMP/W.No.13/KRIDL /STEEL/2016-17

03.09.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer : Asst. Executive Engineer, Shettyhalli Sub Division,
BBMP, Bangalore.

Agency : Technical Manager (West), KRIDL, Bangalore.

Name of the Work : Improvements of CC roads and RCC drains at
Muneshwara temple back side Ideal School and other
roads in Ward No.13, in Shettyhalli Sub Division,
BBMP, Bangalore.

Reference : AEE/SSD/PR/60/2016-17 Dated: 02.09.2016



Date of Test : 03.09.2016

Technical Reference : IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm ²	Tensile strength (Ultimate stress) N/mm ²	Elongation percent gauge length		
1	10	0.62	513	556	13.20	O.K	O.K

Note:





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Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-09/134a/CUBE/2016-17

13.09.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : Technical Manager (West), KRIDL, Bangalore.

* Name of the work : Improvements of CC roads and RCC drains at 8th, 9th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.

* Reference : AEE/SSD/PR/62/2016-17 Dated: 02.09.2016

* Sample ID : RCC Drain Bed Slab Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm²

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : M₂₀

Compressive Strength as on : 7th day

Sample Received on : 13.09.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	06.09.2016	13.09.2016	8.098	330.2	14.68
2	06.09.2016	13.09.2016	8.189	356.3	15.84
3	06.09.2016	13.09.2016	8.265	358.2	15.92

* Information is furnished by the Customer/Representative





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Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-09/134a/CUBE/2016-17

04.10.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : Technical Manager (West), KRIDL, Bangalore.

* Name of the work : Improvements of CC roads and RCC drains at 8th, 9th Cross & other roads near Pipeline in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.

* Reference : AEE/SSD/PR/62/2016-17 Dated: 02.09.2016

* Sample ID : RCC Drain Bed Slab Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm²

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : M₂₀

Compressive Strength as on : 28th day

Sample Received on : 04.10.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	06.09.2016	04.10.2016	8.115	482.3	21.44
2	06.09.2016	04.10.2016	8.229	498.6	22.16
3	06.09.2016	04.10.2016	8.332	516.3	22.95

* Information is furnished by the Customer/Representative

Note:

